Amendments to the Claims

1. (CURRENTLY AMENDED) A control system for a voltage converter, said control system comprising :

- a first switch ~~(T1)~~, a second switch ~~(T2)~~, a third switch ~~(T3)~~ and a fourth switch ~~(T4)~~ connected in series,
- said first switch ~~(T1)~~ having a first output terminal ~~(N1)~~,
- the common terminal of said first switch ~~(T1)~~ and said second switch ~~(T2)~~ defining a second output terminal ~~(N2)~~,
- the common terminal of said second switch ~~(T2)~~ and said third switch ~~(T3)~~ being intended to be connected to an input voltage ~~(VDD)~~,
- the common terminal of said third switch ~~(T3)~~ and said fourth switch ~~(T4)~~ defining a third output terminal ~~(N3)~~,
- said fourth switch ~~(T4)~~ having another output terminal intended to be connected to a ground potential ~~(GND)~~,
- said first, second and third output terminals ~~(N1, N2, N3)~~ being intended to be connected to a voltage converter of a first type or to a voltage converter of a second type,
- detection means ~~(DET)~~ connected to said third output terminal ~~(N3)~~, to generate a detection signal ~~(DS)~~ indicating said first type or said second type of voltage converter,
- a circuit ~~(CIR)~~ intended to generate, from a clock signal ~~(CLK)~~ and said detection signal ~~(DS)~~, control signals ~~(CS1,CS2,CS3,CS4)~~ intended to control said first, second, third and fourth switches ~~(T1, T2, T3, T4)~~.

2. (CURRENTLY AMENDED) A control system as claimed in the claim 1, wherein the detection means ~~(DET)~~ comprise :

- means ~~(CS)~~ for injecting a current ~~(i)~~ at said third output terminal ~~(N3)~~,
- comparing means ~~(COMP)~~ to compare the potential of said third output terminal ~~(N3)~~, with a reference potential ~~(Vref)~~.

3. (CURRENTLY AMENDED) A control system as claimed in ~~claim 1 or 2~~Claim 1, wherein said voltage converter of a first type comprises :

- an inductance ~~(L)~~ connected between said input voltage ~~(VDD)~~ and said third output terminal ~~(N3)~~,
- a diode ~~(D)~~ connected between said first output terminal ~~(N1)~~ and said second output terminal ~~(N2)~~.

4. (CURRENTLY AMENDED) A control system as claimed in ~~claim 1 or 2~~claim 1, wherein said voltage converter of a second type comprises a capacity ~~(Cp)~~ connected between said second output terminal ~~(N2)~~ and said third output terminal (N3).

5. (CURRENTLY AMENDED) An integrated circuit ~~(IC)~~ comprising a control system for a voltage converter as claimed in ~~claim 1, 2, 3 or 4~~claim 1.